Message

From: James Doty [tchdconsultingllc@gmail.com]
Sent: 7/5/2022 4:56:35 PM
To: Ryan (Reagyn) Slocum [Ryan.Slocum@tceq.texas.gov]
CC: David Ramirez [david.ramirez@tceq.texas.gov]; Kristi Mills-Jurach [kristi.mills-jurach@tceq.texas.gov]; Richard Chism [Richard.Chism@tceq.texas.gov]; susan.jablonski@tceq.texas.gov; Lorinda Gardner [Lorinda.Gardner@tceq.texas.gov]; craig.pritzlaff@tceq.texas.gov; Samuel Short [samuel.short@tceq.texas.gov]; toby.baker@tceq.texas.gov; swilson@earthworksaction.org; Rachel Kerr [rkerr@earthworksaction.org]; Rebekah Staub [rstaub@earthworksaction.org]; Michael Biesecker [mbiesecker@ap.org]; chiang.i-jung@epa.go; EPA Press Office [Press@epa.gov]; Nance, Earthea [Nance.Earthea@epa.gov]
Subject: Re: 14 Air Complaints, various operators in TCEQ Region 7

Ryan:

I am writing to you on behalf of my client, Earthworks, regarding findings and observations documented on the recent Permian Basin Optical Gas Imaging (OGI) Monitoring Project that was conducted in the TCEQ Region 7 area from April 27 to May 3, 2022. As you know, Earthworks is a non-profit organization that stands for clean air, water, and land, healthy communities, and corporate accountability. They work for solutions that protect both the Earth's resources and its communities.

Earthworks is a non-governmental organization (NGO) that works to expose the health, environmental, economic, social, and cultural impacts of energy extraction through work informed by sound science, thus they reached out to me, Tim Doty, President of TCHD Consulting LLC (TCHD) in Driftwood, Texas. TCHD is a company that specializes in technical, environmental, safety, and thermography solutions for a variety of clients in the United States, Canada, and Europe.

Ms. Sharon Wilson, Senior Field Advocate for Earthworks, multiple other national Earthworks' field advocates, and I were in the Permian Basin area on this most recent monitoring effort to assess many oil and natural facilities in TCEQ Region 7. OGI videos were recorded at 14 different sites including: Maple Energy Holding LLC (Maple Energy) – Special Effort 18, Maple Energy – War Admiral 24, Maple Energy – Runway Ghost 23, Maple Energy – Seattle Slew, Luxe - Widow Jane, Apache Corporation – Cheyenne Central Processing Facility, Callon Energy – Denton Unit 68 107E, Callon Energy – Meeker Canadian 108-109E Well #9H, Energy Transfer Partners – Yucca Station, Salt Creek Midstream – Pecos Gas Processing Plant, PDC Energy – Tinman 5U, 6U, 7U, 8U, 10U, WTG Gas Processing, L.P. – Crow Compressor Station, Targa – McKnight Compressor Station, and DCP Midstream – Imperial Booster.

I was personally in the field on April 27, 2022, providing technical assistance and guidance to multiple Earthworks' field advocates from Texas, New Mexico, Colorado, and Pennsylvania on OGI, monitoring, and field evaluation matters, thus I personally performed, and/or witnessed relevant field documentation throughout the day. Though I was not personally present, I have reviewed the rest of the April 29 to May 3 field documentation and can attest that it meets or exceeds TCEQ quality standards that I helped to create and establish.

Excessive emissions were documented at all 14 sites from a variety of emission sources in Reeves County, Martin County, and Crane County Texas including but not limited to flares, combustors, compressors, storage tanks, unfunctional vapor recovery systems, vent stacks, and exhaust stacks. Moreover, 11 of these same emission sources and sites have been documented releasing excessive emissions over the last several months and years. In fact, of the sites visited, three of them include first time complaints, while the 11 other sites have been documented as having excess emissions on 92 previous OGI monitoring assessments that included 41 instances of TCEQ air emission complaints.

With that in mind, the Maple Holdings – Special Effort 18 site observations and experiences on April 27 warrant special attention, as the emissions were of a magnitude that are difficult to describe unless you have been onsite and buried in the middle of infrastructure at a refinery or chemical plant with the myriad of odors, emissions, and audible noises. First, the flare is undersized and over-pressurized, and thus the flame was approximately 75% as tall as the flare itself. It was extremely hot per its OGI profile, but the visual and audio evidence indicated that the waste stream was not being properly mixed in the combustion zone as documented by the inconsistent sloshing of its constituents. Consequently, uncombusted/partially combusted hydrocarbon emissions filled the entire horizon way over and beyond the property line resulting in a tremendous quantity of pollution in the airshed surrounding and downwind of the facility.

While the tremendous quantity of flare emissions was documented, it was noted that every storage tank of the 16-tank battery was over-pressurized and was emitting from rooftops and/or associated piping. Hydrocarbon emissions were visible above the tank battery itself and along every sidewall of every storage tank in high-sensitivity mode. The wind conditions were somewhat variable, but hydrocarbon and hydrogen sulfide odors were prevalent downwind of the facility, and as a result, multiple Earthworks' staff members donned respirators along the roadway in Reeves County in view of all passing vehicles.

There is nothing about this site that is correct. It is my understanding that this facility did not have an operating permit when Earthworks first uncovered this site and forwarded documentation to the TCEQ for resolution. Though the facility has obtained a permit since, its permit representations are understated, and the emissions are uncontrolled. I have been conducting air pollution assessments in Texas since 1990 both onsite and offsite, and the Maple Holdings – Special Effort 18 facility needs to be shut down or resolved. Although the term is sometimes misused, I am identifying this site as a Super Emitter. It is odorous, and huge emissions are being released from most of the site's infrastructure in an uncontrolled manner. As witnessed on April 27, this site is also a safety danger to Reeves County, Texas in my estimation as ground level and airshed emissions were in close proximity to the incredible flame and heat from the flare posing potential ignition concerns.

My personal assessment of this facility is actually consistent with historical satellite data that is publicly available, as it is one of four sites on this particular field project that has been previously identified as a big emitter per Carbon Mapper – the others being Apache Corporation Cheyenne Central Processing Facility, Maple Energy – War Admiral 24, and WTG Gas Processing, L.P. – Crow Compressor Station. To verify, please review the information that Ms. Sharon Wilson has provided.

For most of you from TCEQ that are on this communication, I was a former colleague of yours for many years at the Agency, and for others, I am (or was) a friend of yours that provided technical knowledge and assistance to you in performing TCEQ business both planned and unplanned for many years and under some five Executive Directors several of which that I personally interacted with on air mobile monitoring and technical matters. The TCEQ that I used to know and worked for was a state agency that was big, bold, and transformative in exploring innovative technologies, conducting research, and in finding solutions and resolutions for complicated problems.

After all, the TCEQ Office of Compliance and Enforcement did not have all of the answers to technical issues and scenarios before we tested and implemented OGI and new technologies when - meeting with refineries and chemical plants onsite in real-time, climbing storage tanks to monitor and collect samples, collecting product samples from barges, performing onsite refinery and chemical plant assessments, and when conducting air emission assessments by boat on the Houston Ship Channel, just like the Air Quality Division did not have the full understanding of what recommendations that the Flare Task Force would make that ultimately resulted in a multi-million dollar flare study, flare operator training, and update emission inventories. Moreover, certainly the then Executive Director, Glenn Shankle, did not have a full understanding that the permit-by-rule designated Davis Petroleum - Shoreacres Gathering Facility was actually emitting a contractor-estimated annual volatile organic compound emission rate of +380 tons per year of emissions when he ordered it tested after elevated benzene measurements and OGI imaging was conducted adjacent to and in a residential area.

As you already know, reducing air emissions in Texas does not always have to result in a compliance and enforcement matter, though at times it can be appropriate and satisfactory. Achieving emission reductions through success stories can be about but is not limited to – pipeline repairs, storage tank seal replacements, operable vapor recovery systems, updated emission inventories, updated permit representations, drained malfunctioning storage tanks, repaired/cleaned/replaced flare tips and burners, cleaned and vacated separators, et cetera. What happened to those Agency actions that were readily conducted for years by a proactive mobile monitoring program and applicable regional offices?

It outwardly appears that that version of the TCEQ no longer exists, as imaginative success stories do not seem to be a reality anymore. There are many ways to provide air quality relief and solutions to Texans and the planet that are not happening. The Agency has many resources, but it does not seem to have the inclination or political will to effectively use them as evidenced by: the acquisition of +20 OGI cameras but providing no assistance to industry in thermally tuning flares, the lack of use of QL320 tablets for emission quantitation demonstrations or audits, the lack of use of Providence Photonics Mantis™ to assess flare combustion efficiency either by demonstration or audits, no low cost monitoring sensor deployments on fence lines or by drone usage, little to no collection of non-network canister samples in the field that are court defendable resulting in the lowest sample counts since the late 1990's, extremely limited mobile monitoring deployments with no solicitation process beyond top Agency management approval, and of course, semi-quantitative (per the EPA) Differential UltraViolet Absorption Spectrometry rapid van deployments with no focused follow-up investigations and eventual quantitative sampling. The result is that the Agency's current mobile monitoring program has not been this inactive and ineffective in some 30 years.

For each of you addressed on this communication, I appreciate your regulatory efforts, but what has been done in recent memory is not enough. I encourage each of you to dig deeper and to do more in minimizing air pollution in Texas. Failure to act on this field documentation that meets/exceeds TCEQ standards shall be interpreted as a picture of compliance, thus these OGI videos will be used accordingly in the public domain both now and in the future.

The real question is what is the TCEQ going to do to ground truth permit representations and hydrocarbon concentrations so that emissions quantities can be reduced? History with these sites tell us – not much, as oil and natural gas sites statewide operate with impunity as the Agency appears to be satisfied in declaring and interpreting non-reportable emission events. The TCEQ currently seems satisfied with its underwhelming performances, as its Sunset self-evaluation did not appear to request more full-time employees to conduct oil and gas inspections or new policies or regulations that could assist in its associated field investigations.

Oil and natural gas related emissions remain prevalent in the Permian Basin, as these videos should be considered typical examples of Permian emission sources, rather than the worst-of-the-worst sites. Emissions were readily visible throughout the project with a FLIR GF320 OGI camera that is the equivalent to the current +20 OGI cameras that the Agency owns that detect hydrocarbons in the 3.2 – 3.4 micrometer range. Emissions that were not visible to the bare eye but were detectable to the OGI instrument were plentiful from many sources as previously listed.

I look forward to collaborating with the TCEQ in resolving these significant oil and natural gas emissions that are being continuously released in the Permian Basin without regard to human health, climate change, site operations and maintenance, and permit representations. Please feel free to contact me directly regarding these matters and any questions that you may have.

Technical Background

TCHD Consulting LLC is located in Driftwood, Texas and provides technical, environmental, safety, and thermography consulting services to a variety of customers in the United States, Canada, and Europe. Mr. Tim Doty worked for the TCEQ for +28 years and served as the Agency's mobile air monitoring manager and technical expert that included management of up to 20 staff members for 17 years. He performed and managed

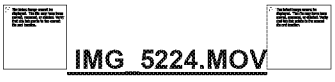
ambient air monitoring and environmental assessments that were conducted both inside and outside of many hundreds of industrial facilities, oil and natural gas sites, and landfills that included EPA interaction and expert witness testimony. He also managed the TCEQ's Mobile Response Team and all of the Agency's emergency response assets for two years and has planned/managed/participated on many manmade and natural disaster responses including but not limited to: Helotes Compost Fire, Corpus Christi Benzene Seep, Hurricane Katrina, Hurricane Rita, Hurricane Ike, Lubbock Dump Fire, 2011 Super Bowl, Bastrop Fires, Wimberley Floods, Magnablend Industrial Explosion, Hurricane Harvey, and the COVID-19 Pandemic.

He is a certified Infrared Training Center Level III thermographer that provided thermography and OGI instruction to some +150 TCEQ staff members after helping to establish OGI field uses and policies within the TCEQ from 2005 - 2018. He also served as a technical advisor to the TCEQ Director of Compliance and Enforcement. He now provides technical, air monitoring, environmental assessments, and OGI and general thermography consulting services, including instruction, to both students and relevant parties including but not limited to those associated with industry, oil and natural gas, environmental causes, safety, the public interest, and the media.

You will be receiving a signed copy of this communication and my affidavit in the mail in the coming days.

Sincerely,

Tim Doty
President, TCHD Consulting LLC
512.644.4830
tchdconsultingllc@gmail.com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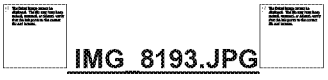
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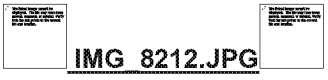
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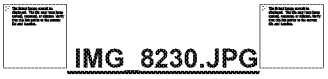
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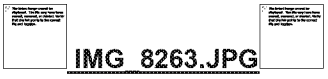
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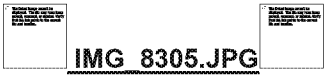
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On Tue, Jul 5, 2022 at 9:00 AM Sharon Wilson <swilson@earthworksaction.org> wrote:
Dear Mr. Slocum,

Below and attached are 14 air complaints on various operators and lease sites with OGI video evidence of emissions ranging from malfunctioning flares, vapor recovery failures, tank hatches, tank pressure relief valves, emission events, and combustion emissions. This evidence was gathered during a monitoring project and Earthworks thermographer continuing education event with Tim Doty who is an ITC Level III thermography instructor and former TCEQ mobile monitoring manager. The monitoring project was conducted from April 27, 2022 through May 3, 2022. I have documented ongoing emissions at some of these sites since 2018, and some of the sites have emitted plumes that were captured by independent satellites.

If TCEQ decides to follow its policy for citizen submitted evidence authorized by Texas Water Code Sec 7.0025 and 30 Tex. Admin. Code 70.4, please let me know and I will provide notarized affidavits and submit unedited videos. As noted in our December 11, 2019, letter, only once in the last eight years that I have been submitting complaints with existing evidence has TCEQ followed its policy for citizen submitted evidence despite the affidavits and videos that have been provided.

With this email, I am notifying you that I will submit notarized affidavits for these complaints, and upload unedited videos at your request if the intent is to follow the citizen submitted evidence policy.

Sharon Wilson | Sr. Field Advocate & Optical Gas Imaging Thermographer
Earthworks | 940-389-1622 | @TXsharon

2022 IPCC report "An atlas of human suffering" ~António Guterres
Watch invisible oil & gas pollution become visible through optical gas imaging videos

Permian Basin Air Complaints
Optical Gas Imaging Field Assessments from April 27 - May 3, 2022
Submitted to TCEQ on July 5, 2022

If TCEQ decides to follow their policy for citizen submitted evidence authorized by Texas Water Code Sec 7.0025 and 30 Tex. Admin. Code 70.4, please let me know and I will provide notarized affidavits and submit unedited videos. As noted in our December 11, 2019, letter, only once in the eight years I have been submitting complaints with evidence has TCEQ followed its policy for citizen submitted evidence despite the affidavits and videos provided.

By this document, I am notifying you that I will submit notarized affidavits for these complaints, and upload unedited videos at your request if the intent is to follow your citizen submitted evidence policy for enforcement action.

1.

Apache Corporation
Cheyenne Central Processing Facility
Reeves County Texas
(31.04867 -103.73467)

This optical gas imaging (OGI) video recorded on April 27, 2022, from 10:32 - 10:34, documents dense hydrocarbon plumes being actively released from three hot combustors and five compressors. Although generally blowing away from field staff, the on-site flare was also emitting an uncombusted/partially combusted hydrocarbon plume that was blowing at quite a distance away from the source. The intensity of these emission sources were not typical for sites of this size and magnitude.

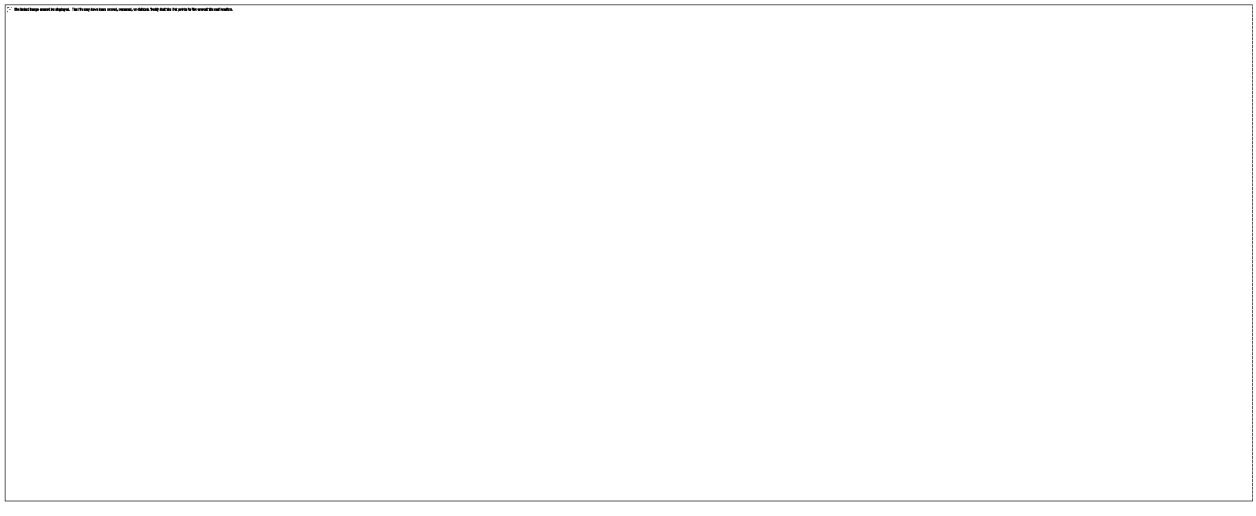
OGI Video: https://youtu.be/9-tNmW66GNQ

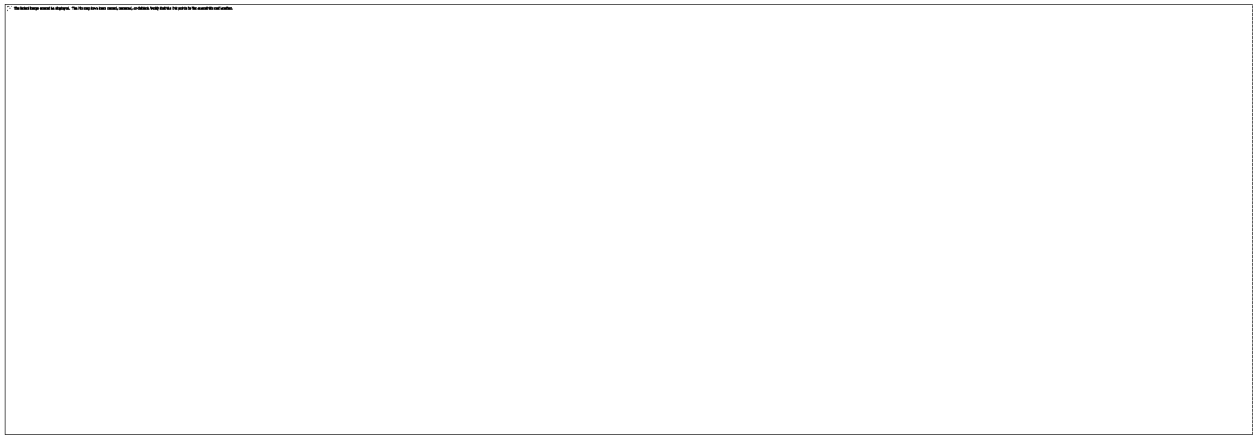
Egregious emissions have been documented at this site multiple times since 2018, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Date complaints were submitted
2018_03_09	Complaint submitted
2018_03_10	Complaint submitted 3/10/18
2018_03_11	Complaint submitted 3/15/18
2018_04_12	
2018_09_26	
2018_09_27	
2018_09_28	
2018_09_29	
2019_08_19	
2019_11_07	
2020_01_12	
2020_09_09	
2021_12_13	Complaint submitted 2/25/22

Carbon Mapper

The satellite image below shows a plume of methane seen from space at this facility on October 31, 2019. The estimated release of methane was 212.23 ± 75.47 kg/hr. Earthworks' Senior Field Advocate, Sharon Wilson, was there seven days later and documented large releases from many areas on the site. This satellite image and estimated methane release calculation with frequent OGI documentation of intense pollution indicates TCEQ is allowing the pollution to be ongoing and a normal operating procedure at this site.





2.

Callon Energy
Denton Unit 68 107E
Verhalen, Reeves County Texas
(31.10999, -103.651179)

This OGI video recorded on April 27, 2022, from 10:57 - 11:01, shows intense plumes of hydrocarbon being emitted from the roof-top area of the storage tank battery that has apparent multiple malfunctioning thief hatches. Consequently, the emissions that are plumbed to a flare that is supposed to combust at some 98% combustion efficiency is not properly destroying waste gas as engineered, designed, and represented in its permit. There was an intense hydrocarbon odor that caused adverse health effects including headaches, eye irritation, and nausea for several in the field group.

OGI Video: https://youtu.be/zV-1d4kMKoY

Egregious emissions have been documented at this site multiple times since 2019, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Date complaints were submitted
2019_08_19	
2020_01_12	Complaint Submitted 1/25/20
2020_02_10	Complaint Submitted 2/21/20

3.

Callon Energy
Meeker Canadian 108-109E Well #9H
Reeves County, TX
(31.107833, -103.633233)

This OGI video that was recorded on April 27, 2022, from 11:21 - 11:22, shows an uncombusted/partially combusted hydrocarbon plume being emitted from a poorly combusting flare. There was limited heat at the flare tip indicated by the small heat bloom, thus the emission lost its heat content an estimated 2 - 3 feet

distant from the flare tip. This flare was not combusting at 98% combustion efficiency as represented in its permit. In addition, a substantial plume of hydrocarbon was being emitted from the rooftop area of the storage tanks and not from the pressure relief valves as represented in its permit representations. Moreover, there were strong hydrocarbon and hydrogen sulfide gas odors downwind of the facility that caused adverse health effects to multiple members of the field group. And finally, there was also an auditory blowdown-type sound within this facility, but no specific source was identified.

OGI Video: https://youtu.be/SeVzPEQaVnE

Egregious emissions have been documented at this site multiple times since 2020, and thus multiple air complaints were submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Date complaints were submitted
2020_09_09	
2021_03_30	
2021_07_07	Complaint Submitted 7/20/21

4.

Maple Energy Holding LLC
Seattle Slew
Pecos, Reeves County, TX
(31.34985, -103.676433)

Five OGI videos were recorded on April 27, 2022, over an almost one hour period including one from 14:37 - 14:38, that document a steady high-pressure stream of hydrocarbon emissions being released from a storage tank's pressure relief valve and thief hatch. Emissions being released from the two locations documents that the emissions are not being controlled per its permit representations and as designed and engineered by the manufacturer. The OGI image is indicative of a poorly maintained storage tank that likely has thief hatch seal issues and pressure relief valve seal and pressure setting issues that negatively affects its ability to minimize hydrocarbon emissions.

OGI Video: https://youtu.be/MNfCi9Ir_U0

Egregious emissions have been documented at this site multiple times since 2019, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Date complaints were submitted
2019_04_24	
2019_04_25	
2019_11_08	
2020_01_11	

2020_01_12	
2020_02_08	Complaint Submitted 2/26/2020
2020_03_05	Complaint Submitted 3/16/20
2020_03_06	Complaint Submitted 3/16/20
2020_09_07	
2020_09_09	
2020_09_10	
2020_09_18	
2020_09_19	
2020_12_04	
2021_07_05	Complaint Submitted 7/14/21
2021_12_12	Complaint Submitted 2/25/22
2021_12_16	Complaint Submitted 2/25/22

5.

Maple Energy Holding LLC
Special Effort 18
Pecos, Reeves County, TX
(31.349933, -103.662967)

Five OGI videos were recording at the Maple Energy Holding LLC Special Effort 18 site on April 27, 2022, including one from 15:23 - 15:26 that documented a tremendous quantity of hydrocarbon being released from this site. Recorded in the Ironbow Palette and high-sensitivity mode (HSM), the video documented high pressure hydrocarbon emissions that were being released from 16 storage tanks on site. The emissions lofted above the storage tanks and was visible along all tank sidewalls in HSM. Nothing appeared to be working correctly as emissions were visible everywhere and from all vessels.

Perhaps even more troubling was the site's very hot flare that was not combusting properly. The flare tip flame was approximately 75% as tall as the flare itself and was very hot, but the flare itself was not combusting effectively at all as the uncombusted/partially combusted plume filled the entire horizon with hydrocarbon. Moreover, regular video footage was also recorded documenting the audio profile of the flare indicating that the waste stream was sloshing inconsistently into the combustion zone. Though the winds were shifting, hydrogen sulfide odors were prevalent and a calibrated ppbRAE 3000 detected approximately 300 parts per billion of hydrocarbon. Multiple field staff felt it necessary to don respirators along the public roadway as the odors were strong and adverse health effects were experienced - headache and burning eyes.

OGI Video: https://www.youtube.com/watch?v=Ff7EE6xUAYM

Four more OGI videos were recorded at this site on May 3, 2022, including one from 11:09 - 11:16 documenting a continuing intense plume of hydrocarbon being emitted from all storage tanks some six days later after the original April 27 video footage. Company staff on site were working in the intense emission plume with no respiratory protection.

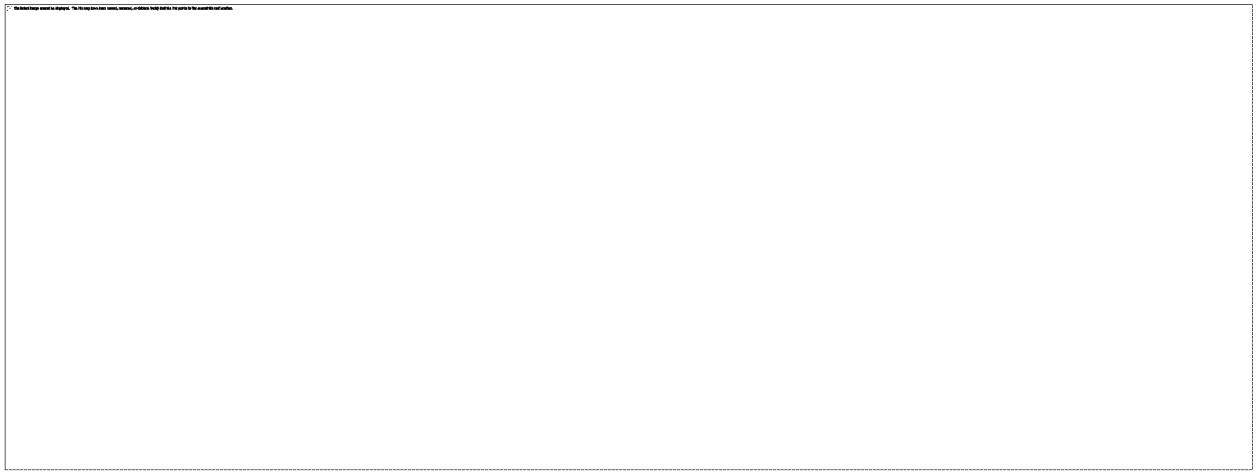
OGI Video: https://youtu.be/j15XS0BVyl8

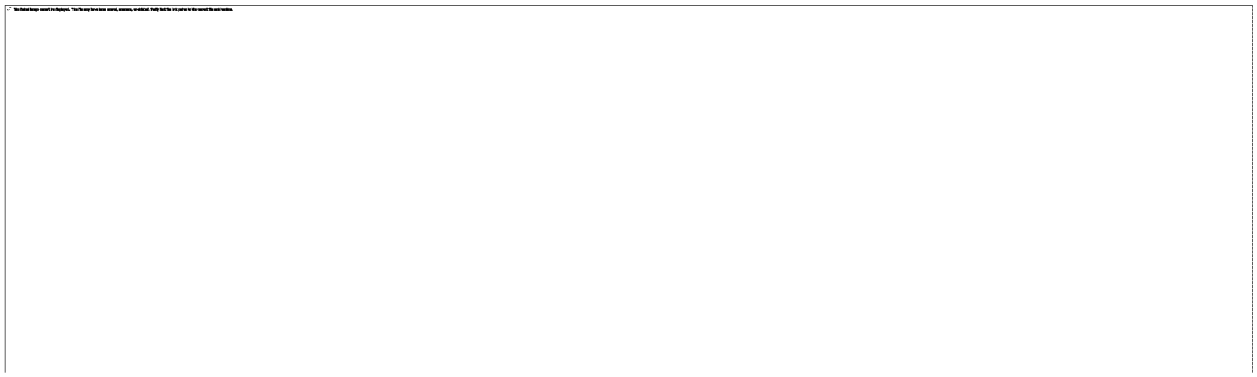
Egregious emissions have been documented multiple times at this site since 2019, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Date complaints were submitted
2019_04_25	
2020_02_10	Complaint Submitted 2/21/20
2020_03_05	
2020_09_07	Complaint Submitted 9/26/2020
2020_09_19	Complaint Submitted 9/26/2020
2021_07_05	Complaint Submitted 7/16/21
2021_10_21	
2021_10_22	
2021_12_11	Complaint Submitted 2/25/22
2021_12_15	Complaint Submitted 2/25/22
2021_12_16	Complaint Submitted 2/25/22
2021_12_17	Complaint Submitted 2/25/22
2022_02_20	Complaint Submitted 3/18/22

Carbon Mapper

The satellite image below shows a plume of methane as seen from space at Special Effort (south side of road) at 15:22 on October 25, 2019. The Maple Energy Pick Pocket 21 facility that is owned by the same operator is located on the north side of the road and was also documented by Carbon Mapper. The estimated release of methane from Special Effort was 505.41 ± 188.45 kg/hr. The estimated release of methane for Pick Pocket was 299.39 ± 53.59 kg/hr. Texas field staff recorded this video at Pick Pocket 21 on November 24, 2019, some one month after this satellite image was recorded.





6.

Energy Transfer Partners
Yucca Station
Pecos, Reeves County, TX
(31.352844, -103.667172)

This combined OGI video was recorded on two different days. The first video was one of three videos recorded on April 27, 2022, and shows a large plume of hydrocarbon being emitted with pressure from the rooftop area of a tank battery. The plume is traveling far outside the facility's property line, and it adds a substantial quantity of hydrocarbon to the airshed. The video also documents a smaller tank adjacent to the roadway emitting hydrocarbon emissions from its tank hatch and not from the engineered pressure relief valve that is represented in its permit. The second video recorded on May 3, 2022, documents the continuing huge plume of hydrocarbon being emitted from the tank battery presumably continuously from April 27 - May 3. The Earthworks' team observed this emission event for another 50 minutes after the May 3 video was recorded as the tank battery continued to continuously emit a large dense hydrocarbon plume to the airshed and at times made ground contact.

OGI Video: https://youtu.be/_Xg8mDgMukU

Egregious emissions have been documented at this site since 2020, on the following dates, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Date complaint was submitted
2020_01_12	Complaint Submitted 1/25/2020
2020_02_08	
2020_03_05	Complaint Submitted 3/28/2020
2021_10_21	
2022_02_20	Complaint Submitted 3/18/2022

7.

Maple Energy Holding LLC
War Admiral 24
Pecos, Reeves County, TX
(31.37008, -103.633332)

Three OGI videos were recorded on April 27, 2022, including this one from 15:09 - 15:10, documenting a large plume of hydrocarbon being continuously emitted from the tank battery, thus indicating that the vapor recovery unit was not working as intended. Though the specific emission source(s) could not be identified from the offsite vantage point, there was also a separate large plume of hydrocarbon being emitted from ground-level to the right of the tank battery in the video.

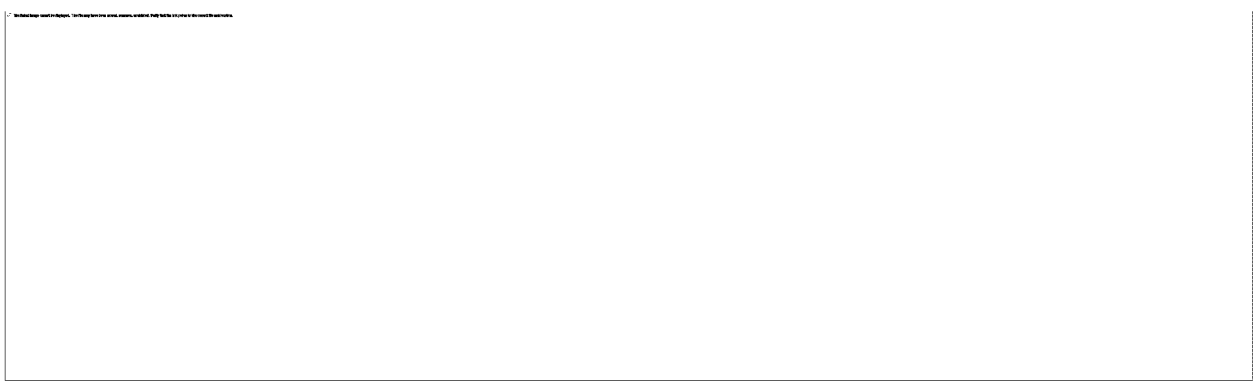
OGI Video: https://youtu.be/Dfe_wG6Q9Hw

Egregious emissions have been documented multiple times at this site since 2020, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Date complaints were submitted
2020_02_10	Complaint Submitted 2/16/20
2020_09_18	
2020_09_19	
2020_12_04	Complaint Submitted 1/6/21
2021_03_28	Complaint Submitted 4/27/21
2021_05_10	Complaint Submitted 6/17/21

2021_10_22	
2021_12_12	
2022_02_20	Complaint Submitted 3/18/21
2022_02_21	Complaint Submitted 3/18/21

Carbon Mapper
The satellite image below shows a plume of methane that was detected from space at this facility on October 17, 2019. The estimated methane release was 89.04 ± 36.87 kg/hr.



8.

Maple Energy Holding LLC
Runway Ghost 23
Reeves County, TX
(31.37359, -103.64394)

This OGI video recorded on April 27, 2022, from 15:17 - 15:18 documents a continuous plume of hydrocarbon being emitted from the pressure relief valve of a single storage tank. From the thermography profile, it can be determined that the plume was not heated and that the tank's thermal capacity is represented by the stratification of its fluid contents.

OGI Video: https://youtu.be/cF5PlrzLeqs

Egregious emissions have been documented multiple times at this site since 2021, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Date complaints were submitted
2021_03_27	
2021_03_28	Complaint submitted
2021_12_12	
2021_12_13	
2021_12_14	Complaint submitted
2022_02_21	Complaint submitted
2022_04_27	

9.

Salt Creek Midstream
Pecos Gas Processing Plant
Pecos, Reeves County, TX
(31.361367, -103.684571)

The OGI video was recorded on April 27, 2022, from 14:20 - 14:22 (the time embedded on the camera was one hour behind). This site-wide video shows multiple hot exhaust stacks that appear to be submitting a significant quantity of uncombusted/partially combusted emissions. These emissions appeared to exceed those from similar source types. There are also documented storage tank emissions that are not being properly controlled at the end of the video.

OGI Video: https://youtu.be/_7aGbKUBfPo

Egregious emissions have been documented at this site since 2019, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Dates complaints were submitted
2019_04_24	
2020_01_12	Complaint submitted
2020_03_05	Complaint submitted
2020_09_07	
2020_09_09	Complaint submitted

2020_12_04	
2021_07_05	Complaint submitted
2022_04_27	

10.

Luxe - Widow Jane
Reeves County, TX
(31.33715, -103.639733)

Two OGI videos were recorded on May 3, 2022, from 11:34 - 11:38, documenting a tremendous quantity of hydrocarbon being emitted from the rooftop area of the Luxe - Widow Jane tank battery. The emissions were detected via OGI from miles away and completely lofted over the horizon and impacted the downwind airshed. In addition, the video also documented additional hydrocarbon emissions being emitted from vertical separators, located in the right hand portion of the video, that exceeded that of similar source types.

OGI Video: https://youtu.be/uT5MBTW6Y5w

Egregious emissions have been documented multiple times at this site since 2021, and thus multiple air complaints have been submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

Date emissions were documented	Dates complaints were submitted
2021_07_05	Complaint submitted
2021_10_22	
2022_02_20	
2022_02_21	Complaint submitted
2022_05_03	

11.

PDC Energy
Tinman 5U, 6U, 7U, 8U, 10U
Pecos, Reeves County, TX
(31.378033, -103.612133)

Two OGI videos were recorded on May 3, 2022, including this one from 12:22 - 12:24, documenting massive flare emissions being released from the PDC Energy facility. The flare was lit, but the waste stream was not effectively destroyed in the combustion zone as the non-heated emissions were visible from miles away from the site and for a far distance from the source. This malfunctioning flare appears to be part of the site's vapor recovery system which is not operating in a manner designed and represented in its respective permit.

OGI Video: https://youtu.be/rMN8tEXXThU.

Egregious emissions have been documented multiple times at this site since 2020, and thus complaints were submitted on the following dates. If TCEQ was effectively addressing these complaints, emissions would not be continually documented and complaints would not need to be submitted.

2020_09_18	
2020_09_19	
2020_12_04	Complaint submitted
2021_10_22	
2021_12_14	
2021_12_15	
2021_12_16	
2022_05_03	

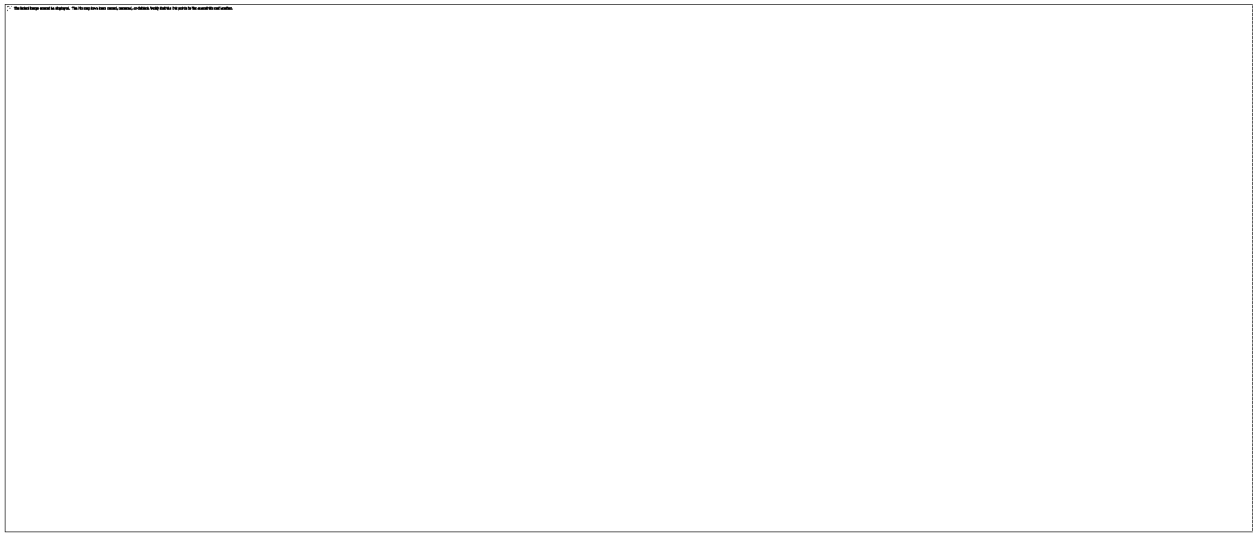
12.

WTG Gas Processing, L.P.
Crow Compressor Station
Lenorah, Martin County, Texas
(32.28667, -101.780701)

This OGI video was recorded on April 29, 2022, from 18:36 - 18:37 and documents apparent high pressure vertical vent stack emissions that were being emitted near a nonoperational compressor. The emissions were intense and significant and were visible from a long distance away from the emission source. The emission profile was excessive and exceeded that of similar source types.

OGI Video: https://youtu.be/nRTETnuY7hk

Carbon Mapper
The satellite image below shows a plume of methane as seen from space at this facility on October 4, 2021. The estimated methane release was 2706.55 ± 2006.46 kg/hr.



13.

Targa
McKnight Compressor Station
Crane County, TX
(31.524567, -102.661079)

Two OGI videos were recorded on May 1, 2022, including this one from 13:59 - 14:00. This facility was emitting very strong hydrogen sulfide odors that prevented the team from lingering too long at the site due to safety considerations. Uncombusted/partially combusted hydrocarbon was being emitted from five compressor stacks, while additional fugitive hydrocarbon emissions were being released within the infrastructure and traveled far away from the equipment at ground level and higher.

OGI Video: https://youtu.be/yUai8DTM6lg

14.

DCP Midstream
Imperial Booster
Crane County, TX
(31.314892, -102.634178)

This OGI video was recorded on May 1, 2022, from 14:28 - 14:29 documents a steady stream of hydrocarbon being emitted from the tank hatch on the gunbarrel separator storage tank. This tank is not being operated as

maintained as designed as the tank hatch should be sealed as the contents are separated into the other two tanks where pressure relief valves are supposed to control emissions.

OGI Video: https://youtu.be/Y5mX0-iHhXw

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